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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/455,662	12/07/1999	STEFANO OLIVIERI	PHN-17.446	5446

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EXAMINER

VO, TUNG T

ART UNIT PAPER NUMBER

2613

DATE MAILED: 07/14/2004

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/455,662

Applicant(s)

OLIVIERI, STEFANO

Examiner

Tung T. Vo

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) 1-3 is/are withdrawn from consideration.
- 5) ☐ Claim(s) is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) is/are objected to.
- 8) ☐ Claim(s) are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 December 1999 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date .
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date .
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by Linzer et al. (US 6,108,039).

Re claims 1 and 3, Linzer discloses a device and its method for recursive motion vector estimation comprising:

a) for a current block of a picture divided into a plurality of blocks (col. 1, lines 28-33), and based on motion information generated for the previously-processed if any (col. 2, line 65-col.3, line 9; see also col. 9, line 46-col. 10, line 16) and if immediately to the left said current block (Top Left to top left, col. 9, lines 51-67), the block being processed by said method in a

predetermined order (zigzag order, left to right, top to bottom), means (ME0 1/64 of fig. 5) for generating a plurality of candidate vectors from stored vectors (24 of fig. 2, e.g. the motion vectors are stored in the motion estimation processor (24), where the motion estimation is described in the figure 3, 54, 60 of fig. 3);

b) means (610 of fig. 5) for selecting one of these candidate vectors to generate a selected vector (ME0-MVT is generated by motion vertical field select(610 of fig. 5));

c) means (Top to top OR Bottom to top SEARCH of fig. 5) for generating a plurality of test vector from the selected vectors (the selected ME0-MVT is generated by ME2 ¼ and Top to top Search to produce ME20-MVT as called a test vector);

d) means (650 of fig. 5) for select one of the test vectors to generate output vector (a single motion vector ME2-MVT is selected from the test vectors ME20-MVT);

e) means for storing output vector (20 of fig. 2, e.g. the selected test vector is stored in the buffer (28) with the encoded video data).

f) Linzer further discloses means (col. 22, lines 5-6) for re-executing the steps above, which is called a recursive motion vector estimation.

Re claim 2, Linzer further discloses adding -1, 0, or +1 to each component (8x8 or 4x4) of the selected vectors into the selecting test vector (col. 10, lines 38-51, searching macroblock start at (0,0) to the right (0, +1), to the left (0, -1), to the top (0, +1), to the bottom (0, -1), see also table 2 in col. 10).

Response to Arguments

3. Applicant's arguments filed 05/24/04 have been fully considered but they are not persuasive.

The applicant argued that Linzer fails to disclose or suggest at least steps a) and f), and the steps of adding -1 , 0 or $+1$ to each component of the selected vector, pages 4 and 5 of the remark.

The examiner respectfully disagrees with the applicant. It is submitted that Linzer does disclose a) for a current block of a picture divided into a plurality of blocks (col. 1, lines 28-33, note an image is divided into macro-blocks that obtains plurality blocks that contains plurality of pixels), and based on motion information generated for the previously-processed if any (col. 2, line 65-col.3, line 9; see also col. 9, line 46-col. 10, line 16) and if immediately to the left said current block (Top Left to top left, col. 9, lines 51-67), the block being processed by said method in a predetermined order (zigzag order, left to right, top to bottom), means (ME0 1/64 of fig. 5) for generating a plurality of candidate vectors from stored vectors (24 of fig. 2, e.g. the motion vectors are stored in the motion estimation processor (24), where the motion estimation is described in the figure 3, 54, 60 of fig. 3), and f) means (col. 22, lines 5-6) for re-executing the steps above, which is called a recursive motion vector estimation. Liner further discloses the step of adding -1 , 0 , or $+1$ to each component (8×8 or 4×4) of the selected vectors into the selecting test vector (col. 10, lines 38-51, searching macroblock start at $(0,0)$ to the right $(0, +1)$, to the left $(0, -1)$, to the top $(0, +1)$, to the bottom $(0, -1)$, see also table 2 in col. 10). In view of the discussion above, Linzer anticipates the claimed features.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung T. Vo whose telephone number is (703) 308-5874. The examiner can normally be reached on 6:30 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris. Kelley can be reached on (703) 305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2613

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PRIMARY
TUNG T. VO
PATENT EXAMINER

Tung T. Vo
Primary Examiner
Art Unit 2613

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